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Title: "Building Better Bridges to Life after High School: Experimental Evidence on Contemporary Career Academies"

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Abstract:
Inequality in academic, financial, and social outcomes for children in the United States has grown over the past decade. Interest by policymakers in strengthening social and economic mobility has focused on points of transition in students' life trajectories. A key transition point is the shift from secondary school to postsecondary pursuits, including college and work. Though much recent discussion has centered on college-going and improving the "match" between a student and an institution, many students never confront college choices because they fail to complete high school.

One initiative aimed at improving students' engagement and performance in high school while simultaneously exposing them to options for postsecondary study and work is career academies. Career academies are structured, multi-year programs within high schools that integrate career and technical education (CTE) courses, project-based learning, internships, and other activities organized around specific career themes into a college-prep curriculum (Levesque et al., 2008). While the concept of career academies is not new, their place and value in the current policy landscape centered on the dual-goal of preparing students for "college and career" is unclear. There is sparse evidence concerning the effects of modern career academies on students' performance in high school and subsequent transitions into the worlds of college and work.

This paper focuses on one part of the dual-goal of modern career academies: the capacity to improve students' transitions from high school to some form of postsecondary training. We examine the causal effects of participation in a contemporary career academy on measures of high school performance, course-taking, engagement, and graduation, as well as on postsecondary enrollment and choice. To do so, we use administrative data from the Wake County Public School System (WCPSS), the largest district in the state of North Carolina, and exploit the fact that enrollees in one particular career academy, the Academy of Information Technology (AOIT) within Apex High School, were admitted by lottery. We employ data on a total of four cohorts of applicants whose on-time high school graduation time-points range from 2012-2013 to 2015-2016. In 2013, AOIT was recognized by the National Academy Foundation (NAF) as an "academy of excellence." Thus, while focused on one academy, our study of this career academy will serve as a severe test: that is, if we find little effects of participation in a modern career academy with well-developed program components and solid implementation on our outcomes of interest, we should be skeptical that less well-developed programs would lead to meaningful effects.

Extant work on the causal effects of career academies studied academies in the 1990s (Kemple & Snipes, 2000; Kemple, 2001; Kemple, 2004; Kemple & Willner, 2008). Since that time, the

economic and postsecondary contexts in which career academies function have shifted dramatically, largely in challenging ways. Further, the character and foci of career academies themselves have changed. Most extant work is outdated because it focuses on academies that operated during an era in which vocational education was often the default holding tank for low-performing, disadvantaged students. Given these marked shifts, we should not expect findings from over two decades ago to necessarily apply to today's students attending career academies. In order to assess the wisdom of investing in career academies, policymakers need credible estimates of causal effects that reflect today's policy landscape and students.

With the rollout of "career- and college-ready standards" across the nation, the character, components, and perception of CTE are changing. In addition, middle-skill jobs that require some form of postsecondary training, though not necessarily a four-year degree, have and will continue to expand (Holzer, 2012). Thus, the capacity to push students to high school completion and on to some form of postsecondary training is a key outcome by which modern educational reform initiatives such as career academies ought to be evaluated.

In terms of emerging results, we find that enrollment in AOIT increases the likelihood of expected, on-time high school graduation by 7.6 percentage points. This overall effect is driven by a relatively larger impact on males than females and seems to be concentrated in the middle third of the baseline achievement distribution.

In current analyses, we are exploring the effects of career academy participation on academic achievement and AP course-taking. For a subset of cohorts, we are also examining effects of AOIT enrollment on survey-based measures of engagement, perseverance, and grit. Finally, we will use administrative data from the National Student Clearinghouse (NSC) matched to our analytic sample to estimate the effects of enrolling in AOIT on college-going and college choice.

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